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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,937	01/19/2006	Bruno Egner-Walter	VAL 204 P2	8638
34232 7590 07/12/2007 MATTHEW R. JENKINS, ESQ. 2310 FAR HILLS BUILDING DAYTON, OH 45419			EXAMINER FERGUSON, MICHAEL P	
			ART UNIT 3679	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,937	Applicant(s) EGNER-WALTER ET AL.	
	Examiner Michael P. Ferguson	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 08 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/08/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following:

The cross-hatching of elements **30,32**, shown in cross-sectional view in Figures 2, 4 and 5, is improper based on the material of such elements.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 7 and 10-22 are objected to because of the following informalities:

Claim 7 (line 2) recites "claim 1". It should recite --claim 5--.

Art Unit: 3679

Claim 10 (line 2) recites "of said ball pin". It should recite --of a first said ball pin--.

Claim 10 (line 3) recites "of a second ball pin". It should recite --of a second said ball pin--.

Claim 11 (line 4) recites "opposite first pin". It should recite --opposite said first pin--.

Claim 12 (line 1) recites "claim 1 wherein". It should recite --claim 11, wherein--.

Claim 13 (line 1) recites "claim 1 wherein". It should recite --claim 11, wherein--.

Claim 14 (line 1) recites "claim 1 wherein". It should recite --claim 11, wherein--.

Claim 14 (line 2) recites "said second ball having a second ball and said second pin". It should recite --a second ball having a second pin--.

Claim 15 (line 1) recites "claim 14 wherein". It should recite --claim 14, wherein--.

Claim 16 (line 1) recites "claim 1 wherein". It should recite --claim 15, wherein--.

Claim 17 (line 1) recites "claim 16 wherein". It should recite --claim 16, wherein--.

Claim 18 (line 1) recites "claim 14 wherein". It should recite --claim 14, wherein--.

Claim 19 (line 1) recites "claim 14 wherein". It should recite --claim 14, wherein--.

Claim 20 (line 1) recites "claim 14 wherein". It should recite --claim 14, wherein--.

Claim 21 (line 1) recites "claim 20 wherein". It should recite --claim 20, wherein--.

Claim 22 (line 1) recites "claim 14 wherein". It should recite --claim 14, wherein--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 (lines 1-2), dependent from claim 11, recites "wherein said second pin is knurled and press-fit into the first recess". Claim 11 (lines 1-5) recites "A ball pin system comprising... said first recess being adapted to receive a second pin integrally formed in a second ball". Claim 11 recites only a first ball and first pin as positively claimed elements of the ball pin system; a second pin and a second ball are only recited as intended use within such claim. Accordingly, it is unclear as to whether a second pin is positively claimed within claim 12, or whether a second pin is only recited as intended use within such claim. Accordingly, one is unable to determine the metes and bounds of claim 12.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-5, 7-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (US 5,284,397).

As to claim 1, Hayashi discloses a ball pin comprising a ball **23** and a pin **22** connected to the ball, characterized in that the ball is provided with a recess **24** on its side facing away from the pin, the diameter of the recess corresponding approximately to a diameter of the pin (Figure 2).

As to claim 3, Hayashi discloses a ball joint comprising a ball pin characterized in that there is a ball cup **13** made of plastic which is disposed in a connecting part **12** (Figure 2).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985). Accordingly, the injection molding process for forming the ball cup is given little patentable weight within claim 3; all that is required of claim 3 is a ball cup disposed in a connecting part.

As to claim 4, Hayashi discloses a ball joint characterized in that the ball cup **13** is disposed on the ball **23** (Figure 2).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966

Art Unit: 3679

(Fed.Cir.1985). Accordingly, the injection molding process for forming the ball cup is given little patentable weight within claim 4; all that is required of claim 4 is a ball cup disposed on the ball.

As to claim 5, Hayashi discloses a ball joint characterized in that there is a seal **25** which acts upon the ball cup **13** (Figure 2).

As to claim 7, Hayashi discloses a ball joint characterized in that the seal **25** has an anchoring section **21** which is arranged in the recess **24** and a circular or annular sealing section which bears against the ball cup **13** (Figure 2).

As to claim 8, Hayashi discloses a ball joint characterized in that there is a stop **21** which is situated in the recess **24** and defines the a maximum possible movement of the ball cup **13** relative to the ball **23** (Figure 2).

As to claim 9, Hayashi discloses a ball joint characterized in that the stop **21** is made in one piece with the ball cup **13** (Figure 2).

As to claim 11, Hayashi discloses a ball pin system comprising:

a first ball **23**; and

a first pin **22** integrally formed in the first ball;

the first ball comprising a first recess **24** situated generally opposite first pin, the first recess sized as to be capable of receiving a second pin integrally formed in a second ball (Figure 2).

7. Claims 1, 3-6, 8, 10, 11, 14-19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hathaway (US 6,352,227).

As to claim 1, Hathaway discloses a ball pin comprising a ball **12** and a pin **30** connected to the ball, characterized in that the ball is provided with a recess **32** on its side facing away from the pin, the diameter of the recess corresponding approximately to a diameter of the pin (Figure 1).

As to claim 3, Hathaway discloses a ball joint comprising a ball pin characterized in that there is a ball cup **14** made of plastic which is disposed on a connecting part **10** (Figure 1).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985). Accordingly, the injection molding process for forming the ball cup is given little patentable weight within claim 3; all that is required of claim 3 is a ball cup disposed on a connecting part.

As to claim 4, Hathaway discloses a ball joint characterized in that the ball cup **14** is disposed on the ball **12** (Figure 1).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966

Art Unit: 3679

(Fed.Cir.1985). Accordingly, the injection molding process for forming the ball cup is given little patentable weight within claim 4; all that is required of claim 4 is a ball cup disposed on the ball.

As to claim 5, Hathaway discloses a ball joint characterized in that there is a seal **18** which acts upon the ball cup **14** (Figure 1).

As to claim 6, Hathaway discloses a ball joint characterized in that the ball cup **14** has a groove in which the seal **18** is arranged (Figure 1).

As to claim 8, Hathaway discloses a ball joint characterized in that there is a stop **30** which is situated in the recess **32** and defines the a maximum possible movement of the ball cup **14** relative to the ball **12** (Figure 1).

As to claim 10, Hathaway discloses an assembly consisting of two ball joints characterized in that a pin **30** of a first ball pin is fitted into a recess **32** of the a ball **12** of a second ball pin (Figure 1).

As to claim 11, Hathaway discloses a ball pin system comprising:

a first ball **12**; and

a first pin **30** integrally formed in the first ball;

the first ball comprising a first recess **32** situated generally opposite first pin, the first recess being adapted to receive a second pin **30** integrally formed in a second ball **12** (Figure 1).

As to claim 14, Hathaway discloses a ball pin system wherein the ball pin system comprises a second ball **12** having a second pin **30** integrally formed in the second ball and mounted into the recess **32** (Figure 1).

As to claim 15, Hathaway discloses a ball pin system wherein the second ball **12** comprises a second recess **32** situated generally opposite the second pin **30**; the first and second balls **12** and the first and second recesses **32** being generally co-axial when the second ball is mounted onto the first ball (Figure 1).

As to claim 16, Hathaway discloses a ball pin system wherein a ball cup **14** is molded onto the first ball **12** (Figure 1, column 3 lines 20-24).

As to claim 17, Hathaway discloses a ball pin system wherein a ball cup **14** comprises a stop **30** that is received in the second recess **32** to facilitate limiting a rotation of a rod **10** coupled to the ball cup (Figure 1).

As to claim 18, Hathaway discloses a ball pin system wherein a ball cup **14** is molded onto the second ball **12**, the a ball cup comprising a stop **30** that is received in the second recess **32** to facilitate limiting a rotation of a rod **10** coupled to the ball cup (Figure 1, column 3 lines 20-24).

As to claim 19, Hathaway discloses a ball pin system wherein the first ball **12** comprises a first diameter and the second ball **12** comprises a second diameter, the first and second diameters being the same (Figure 1).

As to claim 22, Hathaway discloses a ball pin system wherein the first recess **32** comprises a recess diameter that and the second pin **30** comprises a pin diameter that generally corresponds to the recess diameter in order to enable a press fit of the second pin into the first recess (Figure 1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Hathaway.

As to claim 20 and 21, Hathaway does not disclose any structural or functional significance as to the specific size of the first and second balls **12** (Figure 1). Hathaway fails to disclose a ball pin system wherein the first ball comprises a first diameter and the second ball comprises a second diameter, wherein the second diameter is smaller than the first diameter.

The applicant is reminded that a change in the size of a prior art device, wherein no structural or functional significance as to the specific size of an element is disclosed, is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Hathaway wherein the second ball diameter is smaller than the first ball diameter as Hathaway does not disclose any structural or functional significance as to the specific size of the first and second balls, and as such practice is a design consideration within the skill of the art.

Art Unit: 3679

10. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi.

As to claim 13, Hayashi does not disclose any structural or functional significance as to the specific size of the first recess **24** (Figure 2). Hayashi fails to disclose a ball pin system wherein the first recess comprises a depth that is approximately three quarters the length of the first ball.

The applicant is reminded that a change in the size of a prior art device, wherein no structural or functional significance as to the specific size of an element is disclosed, is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin system disclosed by Hayashi wherein the first recess comprises a depth that is approximately three quarters the length of the first ball as Hayashi does not disclose any structural or functional significance as to the specific size of the first recess, and as such practice is a design consideration within the skill of the art.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Sugiura (US 5,860,757).

As to claim 2, Hayashi fails to disclose a ball pin wherein the pin is provided with knurling so that it is capable of being pressed into a recess of a second ball pin without any play.

Sugiura teaches a ball pin wherein a pin **11** is provided with knurling **28** so that it is capable of being pressed into a recess of a ball **12** without any play; the knurling

Art Unit: 3679

ensuring a secure connection between the pin and the ball, the knurling compensating for any play between the members (Figures 1-3, column 5 lines 24-47). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ball pin disclosed by Hayashi wherein the pin is provided with knurling as taught by Sugiura in order to provide a more secure connection between the pin and the ball, the knurling compensating for any play between the members.

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to ball joints:

Morris (US 4,889,356), Stinson (US 5,473,955), Sommerer (US 58,062,655) and Flair (US 3,197,552) are cited for pertaining to ball joints comprising a ball pin having a ball, a pin and a recess facing away from the pin.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MPF

06/27/07



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